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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/857,206 | 06/22/2001 | Dong Do Lee | P66761USO | 6181 |
| 43569 | 7590 | 05/25/2005 | EXAMINER | |
| MAYER, BROWN, ROWE & MAW LLP 1909 K STREET, N.W. WASHINGTON, DC 20006 | | | MOORE JR, MICHAEL J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2666 | |

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 09/857,206 | | LEE ET AL. | |
| | Examiner | | Art Unit | |
| | Michael J. Moore, Jr. | | 2666 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6 is/are rejected.
- 7) ☒ Claim(s) 3-5 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Replacement drawings were received on 2/24/2005. These drawings are acceptable and have been entered.

Specification

Amendments made to the abstract and the specification to obviate objections provided in the previous Office Action are proper and have been entered. These objections have been withdrawn.

Claim Objections

Amendments made to claims **1-6 and 8** to obviate objections provided in the previous Office Action are proper and have been entered. These objections have been withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **1, 2, and 6** are rejected under 35 U.S.C. 102(e) as being anticipated by Takano (U.S. 5,924,043). Takano teaches all of the limitations of the listed claims with the reasoning that follows.

Regarding claim 1, “an apparatus for controlling uplink transmitting power in a CDMA mobile station” is anticipated by the transmit power controller 190a of Figure 10 spoken of on column 13, line 24 – column 14, line 3. “A channel estimator detecting power magnitude and/or phase of a specific channel of received downlink signals” is anticipated by transmit power controller 190a (channel estimator) of Figure 10 that receives a plurality of TPC bits (power magnitude information detection) from base station 101 as spoken of on column 13, lines 46-50.

“A speed estimator estimating a moving speed of the mobile station based on the detected power magnitude and/or phase” is anticipated by speed detector 192 of Figure 10 that detects mobile unit speed as spoken of on column 13, lines 33-37. “A step adjuster changing the size of a power control step based on the estimated moving speed” is anticipated by step selector 116 of Figure 10 that selects an optimal step size based upon the detected speed as spoken of on column 13, lines 33-37.

“A demodulator extracting a power control command contained in the received downlink signals” is anticipated by accumulator 114 of Figure 10 that stores TPC bits (power control command) received from base station 101 as spoken of on column 13, lines 46-50. Lastly, “a power level controller adjusting power level of transmitting signals by the changed power control step size according to the extracted power control command” is anticipated by transmit power controller 190a of Figure 10 that uses speed detector 192 as well as step selector 116 to adjust transmitting power level as spoken of on column 13, lines 28-58.

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Regarding claim 2, "wherein the specific channel is a pilot channel" is anticipated by the TPC bit transmission over a traffic channel (pilot channel) spoken of on column 2, lines 18-23.

Regarding claim 6, "a method of controlling uplink transmitting power in a CDMA communication system" is anticipated by the transmission power adjusting method performed by transmit power controller 190a of Figure 10 spoken of on column 13, lines 25-58. "Receiving downlink signals" as well as "detecting power magnitude and/or phase of a specific channel of the received downlink signals" is anticipated by the reception of a plurality of TPC bits (power magnitude information detection) from base station 101 as spoken of on column 13, lines 46-50.

"Extracting a power control command from the received downlink signals" is anticipated by accumulator 114 of Figure 10 that stores TPC bits (power control command) received from base station 101 as spoken of on column 13, lines 46-50.

"Estimating a moving speed of a mobile station based on the detected power magnitude and/or phase" is anticipated by speed detector 192 of Figure 10 that detects mobile unit speed as spoken of on column 13, lines 33-37.

"Changing a power control step size based on the estimated moving speed" is anticipated by step selector 116 of Figure 10 that selects an optimal step size based upon the detected speed as spoken of on column 13, lines 33-37. Lastly, "increasing or decreasing power level of transmitting signals by the changed power control step size according to the extracted power control command" is anticipated by transmit power

controller 190a of Figure 10 that uses speed detector 192 as well as step selector 116 to adjust transmitting power level as spoken of on column 13, lines 28-58.

Allowable Subject Matter

4. Claim **8** is allowable over the prior art of record.
5. Claims **3-5 and 7** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to amended claims **1, 2, and 6** have been fully considered but they are not persuasive.

Regarding claims **1 and 6**, Applicant argues that according to Takano, the speed of a mobile station is estimated by accumulating the TPC bits whereas in the present invention, the operation of counting the TPC bits is performed to obtain information for controlling the transmitting power level rather than for estimating the speed of a mobile station. This comparison is noted. However, what is claimed is *"a speed estimator estimating a moving speed of the CDMA mobile station based on the detected power magnitude and/or phase"* (claim 1) and *"estimating a moving speed of a mobile station based on the detected power magnitude and/or phase"* (claim 6). These claim limitations do not specifically indicate what detected power magnitude and/or phase is used to estimate the mobile station speed. Therefore, it is held that the use of TPC bits to estimate the mobile station speed in Takano anticipates these claim limitations.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (8:30am - 5:00pm).

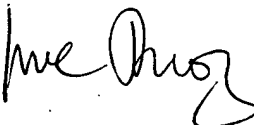
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Moore, Jr.
Examiner
Art Unit 2666

mjm MM


FRANK DUONG
PRIMARY EXAMINER